REMARKS

This Amendment is responsive to the communication of December 31, 2003. Re-examination and reconsideration of claims 20-28 and 30-37 are respectfully requested.

The Office Action

The specification stands objected to as not including an abstract of the invention.

Claim 20 stands rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement.

Claims 20-31, 34, and 36-37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner (U.S. Patent No. 4,090,064) in view of Buisson (U.S. Patent No. 4,988,995).

Claim 32 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Buisson, and in further view of the Temperature Book by Omega.

Claim 33 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Buisson, and in further view of Ruhl (U.S. Patent No. 4,009,615).

Claim 35 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Buisson, and in further view of Kawamura (U.S. Patent No. 4,690,532).

The Present Application

The present application relates to a temperature reading device. In particular, the device of the present application contemplates a computation device for computing a temperature value of a digit number larger than the predetermined display digit number to be displayed on a display device. Additionally, the present application defines a first temperature value portion as a portion of the temperature value having a first set of predetermined digit or digits. It also defines the second temperature value portion as another portion of the temperature value having a second set of predetermined digits including all remaining digit or digits other than the first set of predetermined digit or digits.

Further, the present application contemplates a control device for controlling the display device to display the first temperature portion and the second temperature portion in such a manner that one of the first and the second temperature portions is displayed while the other of the first and the second temperature portions is not displayed and vice versa. Resultantly, it is possible to display a temperature value of a digit number larger than the predetermined display digit number to be displayed on the display device.

The Objection to the Specification

Currently, the Examiner has objected to the specification as not containing an Abstract of the Invention. The applicant would like to direct the Examiner's attention to the Amendment A submitted by the applicant on October 10, 2002. The Abstract is included in that Amendment on page 14. The applicant respectfully requests that the objection to the specification be withdrawn.

A courtesy copy of said page 14 is enclosed in the event that page 14 was lost in the electronic scanning process.

The 35 U.S.C. § 112 Rejection

The applicant has amended the claims to remove all instances of "time sharing." It is therefore respectfully submitted that the § 112 rejection should be withdrawn.

The Claims Distinguish Patentably and Unobviously
Over the References of Record

Claim 20 calls for a computation device for computing a temperature value of a digit number larger than the predetermined display digit number that can be displayed on a display device. The combination of Turner and Buisson fails to teach or reasonably suggest such a computation device. The control circuit disclosed in Turner only displays whatever temperature value will fit on the display at one time. For example, consider a display in which the predetermined number of display digits is four digits, while the calculated temperature value is five digits (e.g. 100.03). In the present application, all five digits are displayed on the four display digits by displaying a first portion of the temperature (e.g. 100.0) and a

second portion (e.g. 3). The first and second portions are displayed at different times. In contrast, Turner calculates a temperature value that is limited in accuracy to be equal to the number of display digits. In the example with only four display digits, Turner would calculate the temperature with four significant digits (e.g. 100.0) and display all four digits at the same time.

Further, claim 20 calls for the first temperature value portion to be defined as a portion of the temperature value having a first set of predetermined digit or digits, and the second temperature value portion to be defined as another portion of the temperature value having a second set of predetermined digit or digits including all remaining digit or digits other than the first predetermined digit or digits. The combination of Turner and Buisson neither teaches nor suggests this feature. In the present application, the sum of the digits included in the first and second temperature value portions is necessarily larger than the predetermined display digit number. For example, assuming that a temperature value to be displayed on the display device has five digits (100.03) the first temperature value portion may have three digits (100) and the second temperature value portion may have two digits (03). The predetermined display digit number in this case is four, and the sum of the digits in the first and second temperature value portions is larger, at five.

In contrast Turner does not teach this feature. If it assumed that the display has four digits and the first temperature value portion is of a digit of 1 to 100, and the second temperature value portion is of a digit in the tenths (1/10) place, a sum of digit numbers of Turner will be no greater than 4, which is equal to the predetermined display digit number. For example, assuming that a temperature value to be displayed on the display device has four digits say, 100.0, the first temperature value portion may have three digits (100) and the second temperature value portion only has one digit (0). The sum of the digits to be displayed is equal to the predetermined display size, in this case, four all displayed concurrently.

Additionally, claim 20 calls for a control device for controlling the display device to display a first temperature value portion and a second temperature value portion in such a manner that the second temperature value portion is not displayed while the first temperature value portion is displayed and vice versa. It

is to be noted that the entire temperature value of the present invention cannot be all displayed on the display at the same time, as it is larger than the predetermined number of display digits. So, as set forth in the present application, the two portions are preferably displayed alternately. In this manner, the temperature value is displayed without rounding. In contrast, Turner neither teaches nor suggests the alternating displays because the combined temperature value in Turner is equal to the predetermined digit number of the display, so no alternating display is needed.

While it is true that Buisson shows selective switching of two screens on a display device, Turner has not shown any motivation to combine with Buisson. Turner has raised no problem that needs to be addressed by an alternating display. Turner displays four digits on a four digit display; there is no need for an alternating display. Therefore, one skilled in the art at the time of invention would not reasonably look to Buisson to solve a problem that was never raised in Turner. Turner gives no motivation for one skilled in the art to combine it with Buisson. If, however, the references were combinable, the applicant believes that the invention as claimed still defines over the combination, as previously stated.

Neither of the references alone or the two taken together put the reader in possession of a technique for displaying a temperature with greater accuracy than the number of digits on the display. It is respectfully submitted that **claim 20** and **claims 21-28** and **30-37** dependent therefrom distinguish patentably and unobviously over the references of record.

The cancelled claims have been replaced with corresponding means plus function and method **claims 39 and 40**. In contrast to Turner who calculates the temperature with a number of digits that is equal to or less than the number of available display digits and displaying all digits concurrently; claims 39 and 40 call for calculating the temperature with a greater number of digits than the display can display, and displaying the most and least significant digits alternately.

Telephone Interview

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby requested to telephone Jay F. Moldovanyi or Thomas E. Kocovsky at Telephone Number (216) 861-5582.

CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 20-28, 30-37, and 39-40) are now in condition for allowance.
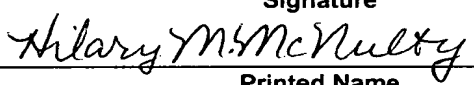
Respectfully submitted,

FAY, SHARPE, FAGAN,
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June 29, 2004
Date

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